

Exhibit 3

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Report of Professor Thomas McGuire

Regarding Public Nuisance

March 25, 2019

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huge numbers of detailing visits.²⁵ Drug company promotional efforts can go too far, and have been put in check by national reporting requirements and ethical guidelines imposed by private organizations that limit payments and even contacts with pharmaceutical representatives.²⁶ In the context of prescription opioids, manufacturers were purveying biased information. As explained in the expert report of Dr. Matthew Perri, the information doctors were being given about the dangers of prescription opioids was in most cases false, and systematically and intentionally misleading.²⁷ Dr. Perri's report establishes, among other things, that (i) manufacturers of prescription opioids are sophisticated marketers who are skilled in applying marketing strategies and tactics to successfully target and reach their desired customers, (ii) these Defendants target multiple audiences, including patients, prescribers, insurers, formulary decision makers, wholesalers, and pharmacies, (iii) this marketing of prescription opioids expanded demand for these drugs, with increases in the volume of doses sold and the numbers of patients treated with opioids, (iv) the addictive properties of opioids make marketing of such products especially problematic because of the likelihood that market demand may be driven by tolerance, dependence, abuse or addiction, and (v) in the context of addictive substances,

Shares of Brand Name and Generic Pharmaceuticals," *Journal of Law and Economics*, 31(2), October 1988, pp. 299-320 at 302.

²⁵ From 1993 to May 2018, opioid drug manufacturers made over 10 million detailing visits (see Rosenthal Report, Attachment C).

²⁶ See National Conference of State Legislatures, "Marketing and Advertising of Pharmaceuticals," November 5, 2018, available at <http://www.ncsl.org/research/health/marketing-and-advertising-of-pharmaceuticals.aspx>. Also see Centers for Medicare & Medicaid Services (CMS), Open Payments page, available at <https://www.cms.gov/openpayments/> ("Open Payments is a national disclosure program ... making the financial relationships between applicable manufacturers and group purchasing organizations (GPOs) and health care providers (physicians and teaching hospitals) available to the public.").

²⁷ Perri Report, Section III.C.

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as these prescriptions of opioids are, expansion of demand is not an appropriate use of marketing.²⁸

22. As a result, the ultimate “consumers” of prescription opioids (patients) were not properly informed about the risk of harms associated with prescription opioids because their doctors were systematically misled by manufacturers. Without full knowledge of harms, a consumer cannot take them into account, nor can the consumer weigh the harms and costs relative to any purported benefits. Consumers could not accurately anticipate prescription opioids’ addictive properties because their agents, *i.e.*, physicians, were misled by Defendants.

C. Benefits from Shipments and Positive Externalities

23. A product (like prescription opioids) even while harming users through inappropriate use and harming others by imposing negative externalities, might at the same time confer positive benefits on particular individuals when used in accordance with scientifically acceptable clinical criteria, and furthermore might, in those circumstances, generate positive externalities to others.

24. A comprehensive evaluation of a public nuisance from an economic perspective considers both the positive and negative effects of the potential public nuisance. The empirical framework I apply in this Report recognizes and quantifies not only costs in economic terms, but also the ostensible benefits to both to the user, and to the wider economy, from the use of prescription opioids based on scientifically acceptable clinical criteria. Consideration of both benefits and costs allows for a net accounting in which benefits can be weighed against costs.

²⁸ Perri Report, Section III.

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D. Widespread Negative Externalities to Public Health are Often Addressed by Public Policy

25. The economic characteristics of widespread negative externalities (or public bads) generally mean that to contend with the negative externality, public action is needed. No single individual has the incentives or is in a position to respond forcefully and efficiently to a problem affecting large shares of the population. Collective action, led by government, is needed to effectively address the crisis. In economic terms, collective action is generally necessary when the social harm takes the form of a large-scale negative externality.²⁹

26. There are many examples, within public health, of collective action, led by government, to contend with widespread negative externalities. Outside of the context of the opioid crisis, this includes taxation of goods such as cigarettes and alcohol, bans on use of alcohol and other goods by vulnerable age groups, and bans on consumption in certain locations (*e.g.*, smoking in restaurants or consumption of alcohol in public).

27. I note that not all activities that might lead to a significant imbalance, in economic terms, between overwhelming costs versus benefits are treated under the law as a public nuisance requiring sweeping government intervention to abate its existence. For example, while I have not conducted the analysis, one might surmise that an economic weighing of the benefits versus costs of the prevalence of alcohol use yields an overwhelming net cost to society; yet for myriad reasons, society condones the prevalence of alcohol and, subject to its regulation and appropriate use, selling, buying and consuming alcohol are legal activities.

²⁹ M. Olson, *The Logic of Collective Action: Public Goods and the Theory of Groups*, Harvard University Press, 1965.